

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-011500**Date Inspected:** 10-Jan-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Li Yang and Wu Zhi Cheng	CWI Present:	Yes	No
Inspected CWI report:	Yes No N/A	Rod Oven in Use:	Yes	No N/A
Electrode to specification:	Yes No N/A	Weld Procedures Followed:	Yes	No N/A
Qualified Welders:	Yes No N/A	Verified Joint Fit-up:	Yes	No N/A
Approved Drawings:	Yes No N/A	Approved WPS:	Yes	No N/A
		Delayed / Cancelled:	Yes	No N/A
Bridge No:	34-0006	Component:	OBG Trail Assembly	

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 6AW (Bottom Panel Connecting Clips)

This Quality Assurance (QA) Inspector witnessed final tension verification for Clips connecting Bottom Panel T-ribs to the Floor Beam at Bottom Panel at Panel Point (PP) 37, PP 38, PP 39 and PP 40 for Segment 6AW. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00231 Dated January 10, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160001 and final torque required was 210 N-m and

Bolt sizes used were M16 x 65 RC Set# DHGM160006 and final torque required was 180 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-118.

Segment 6AW (Side Panel Cross Beam Side Connecting Clips)

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

This Quality Assurance (QA) Inspector witnessed final tension verification for Clips connecting Side Panel Cross Beam Side T-ribs to the Floor Beam at Panel Point (PP) 38, PP 39 and PP 40 for Segment 6AW. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00231 Dated January 10, 2010.

Bolt sizes used were M16 x 50 RC Set# DHGM160003 and final torque required was 200 N-m and

Bolt sizes used were M16 x 65 RC Set# DHGM160006 and final torque required was 180 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-118.

Segment 6AW (Side Panel Counter Weight Side Connecting Clips)

This Quality Assurance (QA) Inspector witnessed final tension verification for Clips connecting Side Panel Counter Weight Side T-ribs to the Floor Beam at Panel Point (PP) 37, PP 38, PP 39 and PP 40 for Segment 6AW. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00231 Dated January 10, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160001 and final torque required was 210 N-m and

Bolt sizes used were M16 x 65 RC Set# DHGM160006 and final torque required was 180 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-118.

Segment 6BW to 6CW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Bottom Panel T-Ribs for Segment 6BW to 6CW. Weld identified as BP087-001-20/21/22/23/24/25/26. . The welder is identified as 053609. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2233-B-U2-F. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

Segment 6BW to 6CW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Bottom Panel T-Ribs for Segment 6BW to 6CW. Weld identified as BP033-001-20/21/22/23/24/25/26/27/28 and 30. The welder is identified as 067501. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2233-B-U2-F. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

Segment 6CW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for FL3 Floor Beam for Segment 6CW. Weld identified as FB031-001-002 and FB031-001-004 and FB031-001-006. The

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

welder was identified as 069683. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2114-FCM-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

Segment 6CW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for FL3 Floor Beam for Segment 6CW. Weld identified as FB035-001-154 and FB035-001-156 and FB035-001-158. The welder was identified as 066179. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2114-FCM-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

Segment 6CE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Longitudinal Diaphragm Cross Beam Side for Segment 6CE. Weld identified as Seg032D-011, Seg032D-013, Seg032D-015, Seg032D-016, Seg032D-009 and Seg032D-010. The welder was identified as 220066. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2132, WPS-B-T-2231-Tc-U4b-F, and WPS-B-T2233-Tc-U4b-F. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

Segment 5AW to 5BW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) repair welding for Weld connecting Side Panel to Bottom Panel Cross Beam side for Segment 5AW to 5BW W4 location. The repair welding was been performed against Critical Welding Repair Report B-CWR 1046 Dated Jan 07, 2010. Weld identified as Seg021A-007 and Seg023A-021. The welder was identified as 066261 and 037743. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-1G (1F)-FCM-Repair-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

Segment 5CW

This QA Inspector observed ZPMC personnel at Segment 5CE at PP 35 Bottom Panel Floor Beam to Floor Beam Traveler Rail angle bracket installation is in progress.

Segment 5CW to 6AW

This QA Inspector observed ZPMC personnel at Segment 5CW to 6AW between PP 36 and PP 37 Longitudinal Diaphragm flange holes to splice plate match drilling was in progress for Cross Beam (south) and Counter Weight (North) side.

Segment 6BW to 6CW

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

This QA Inspector observed ZPMC personnel performing Heat Straightening for the Longitudinal Diaphragm for Segment 6BW to 6CW between PP 40 and PP41. Heat straightening been performed as they were misaligned. Heat Straightening been performed against the Heat Straightening Report (HSR) HSR1 (B)-7992 Rev.0 Dated Dec 11, 2009 for the following weld Joints.

Seg 029B-007~008

Seg 029C-038~039

Seg 027D-035~038

Seg 029F-035~038

LD009A-001~010

LD010A-001~010

Segment 6AW to 6BW

This QA Inspector observed ZPMC personnel at Segment 6AW to 6BW between PP 40 and 41 U-Rib to U-Rib internal splice plate installed and match drilling has been in progress and for Bottom Panel T-Rib to T-Ribs match drilling was in progress.

Segment 6CE

This QA Inspector observed ZPMC personnel at Segment 6CE at PP 47 for short Longitudinal Diaphragm flange and web welding to Floor Beam was in progress.

Segment 6CE to 7AE

This QA Inspector observed ZPMC personnel at Segment 6CE to 7AE between PP 47 and PP 48 hold back welded area grinding was in progress.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer
